

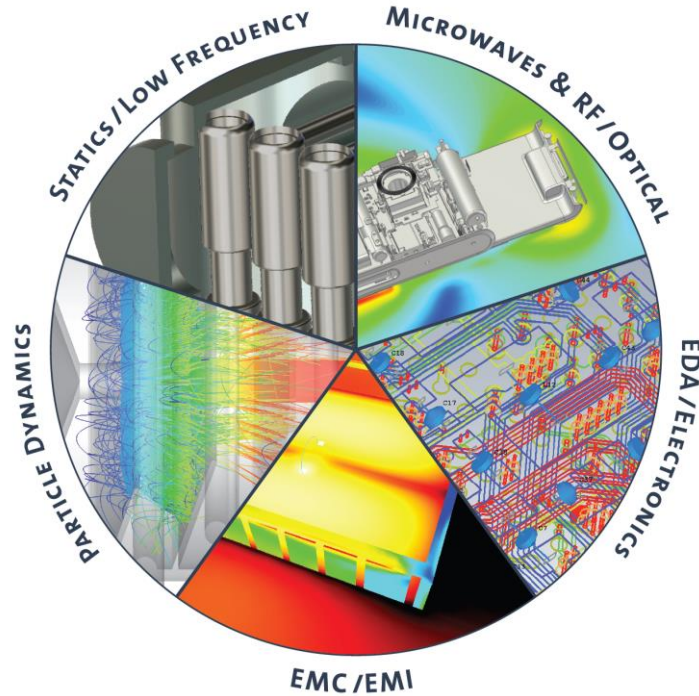


DESIGN AND SIMULATION PROPOSAL in the field of electricity-electronics, telecommunications, high-frequency with Dassault Systemes SIMULIA CST



3DEXPERIENCE®

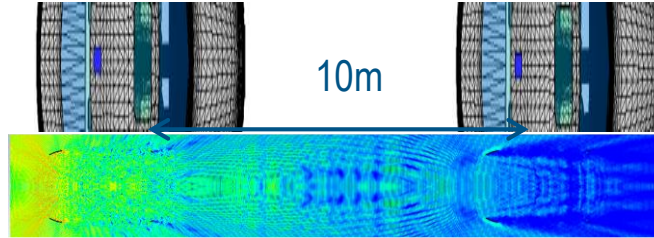
Industries and Applications



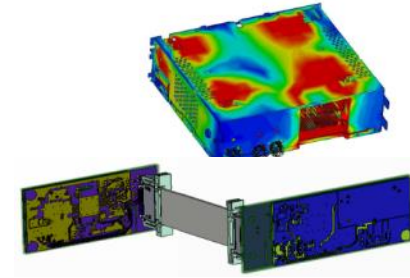
Transportation & Mobility



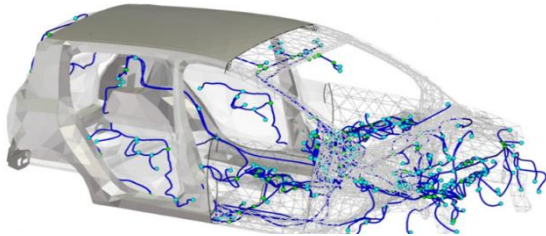
Antenna Design (GPS, GSM, etc.) and Installed Performance on Car Body



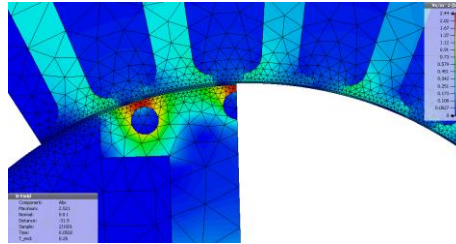
Radar, Sensor (ADAS/AV), and Vehicle Communication Systems Performance



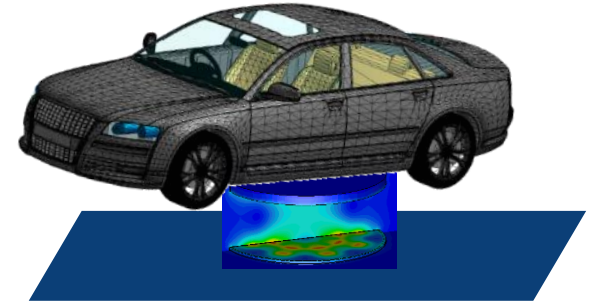
On-board Electronics SI/PI, EMC/EMI Performance



Cable and Wire-Harness Engineering

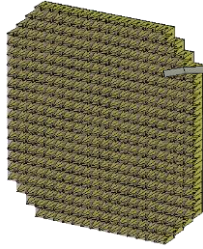
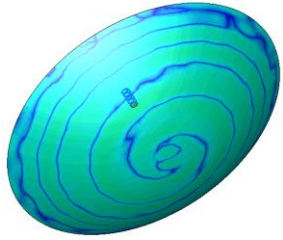


Electric Drive System and Motor Engineering

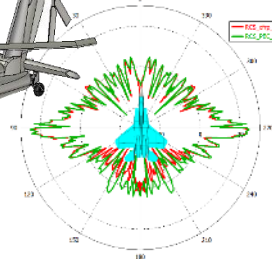


Wireless Charging Systems Engineering

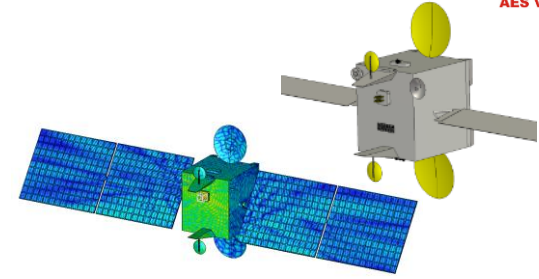
Aerospace & Defense



Reflector and Antenna Array Engineering



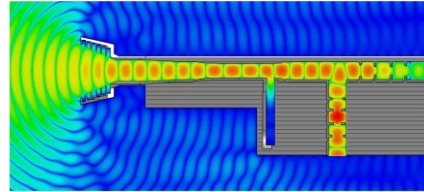
Detection System Engineering (RCS)



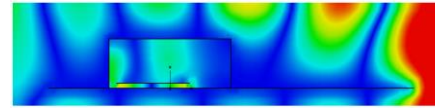
Communication System Design and Interference Mitigation



RADAR and Communication System Design

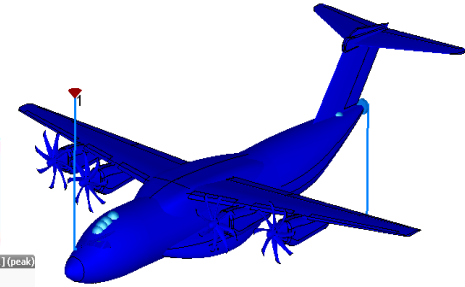


Feeding Systems and Breakdown Analysis



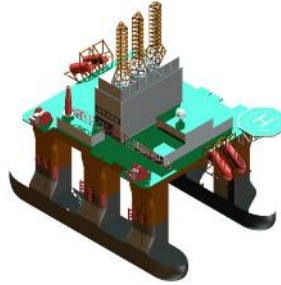
Shielding Effectiveness

surface current (t=0.10(0.2))[cosim Tran1] (peak)	
Component:	Abs
3D Maximum:	0
Sample(S1):	1
Time:	0

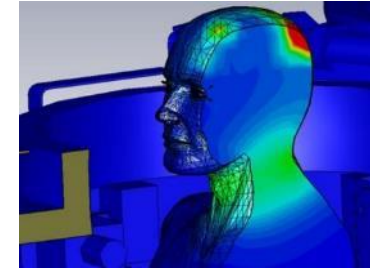


Lightning Strike and EMC Simulation

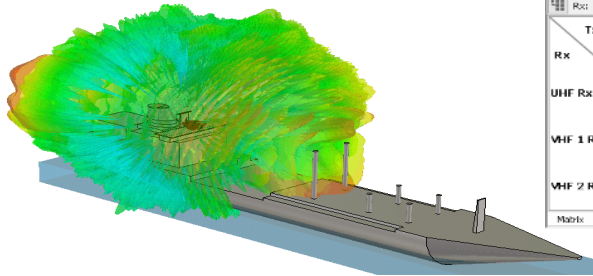
Marine & Offshore



Antenna Design and Installed Performance on Ship or Oil Rig



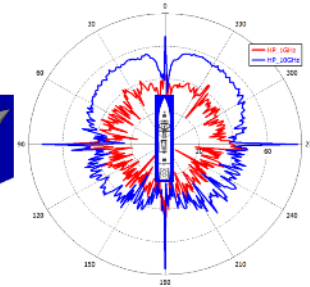
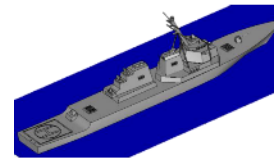
Radiation Hazard Mitigation



	Tx			
	HF Tx	UHF Tx	VHF 1 Tx	VHF 2 Tx
Rx				
UHF Rx	!		✓	✓
VHF 1 Rx	✗	✓		✗
VHF 2 Rx	✗	✓	✗	

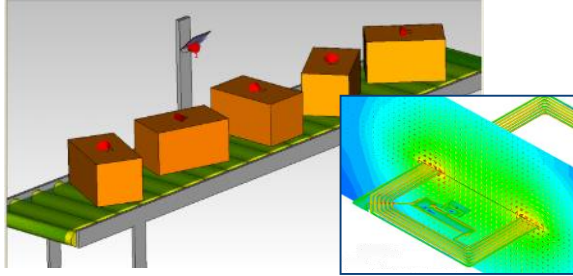
Matrix List

Communication System Design and Interference Mitigation

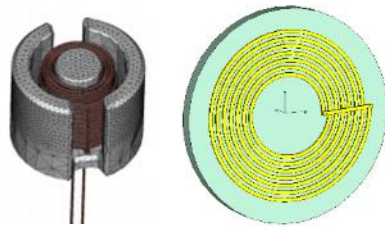


Detection System Engineering (RCS)

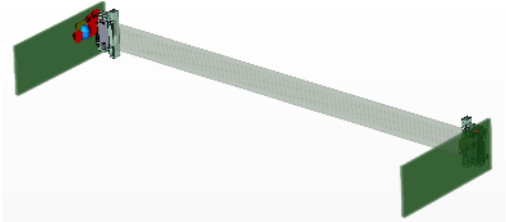
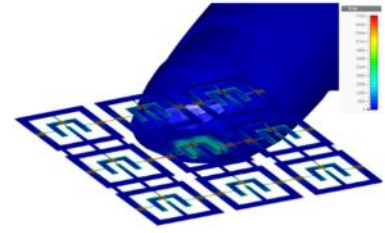
Industrial Equipment



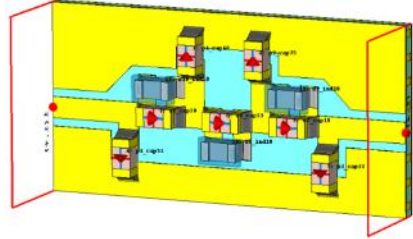
Identification Tag Design and Installed Performance on Objects



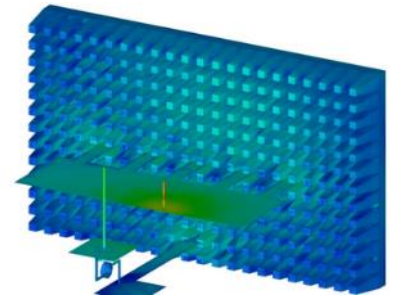
Sensors (Position, Pressure, Flow, Magnetic Field, etc.)



Cable and Wire-Harness Engineering



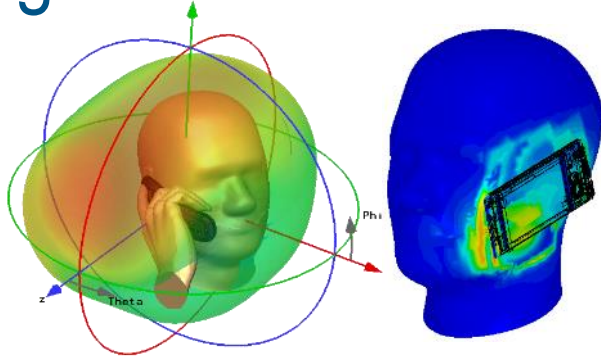
Measurement- PCB and Device Performance Analysis



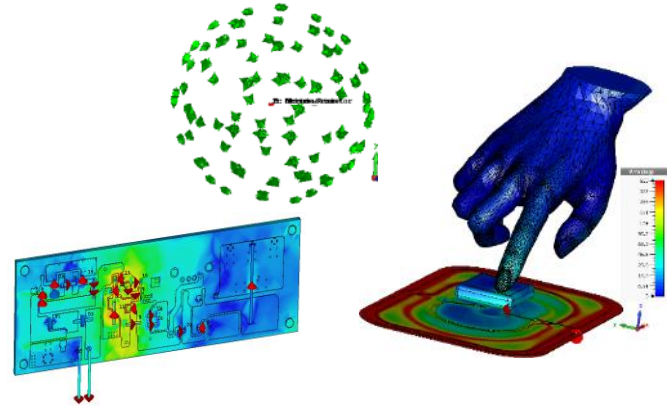
Test Chamber Engineering (RF/EMC)

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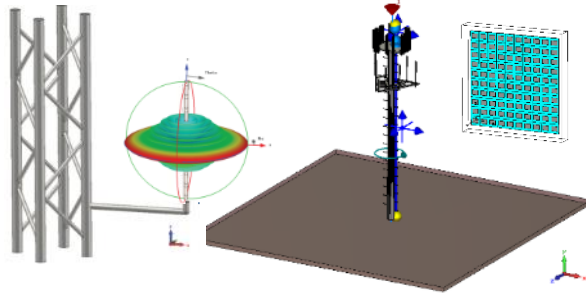
High Tech Overview



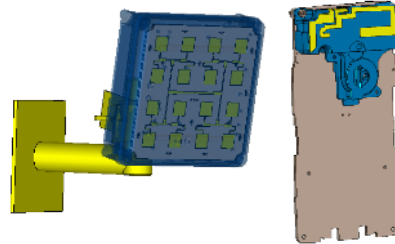
Antenna Design and Installed Performance on Mobile Phone



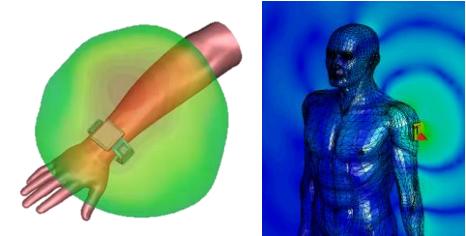
Printed Circuit Board Performance Analysis (EMC/EMI, SI/PI)



Base Station Performance and Coverage Simulation (4G, 5G, etc.)

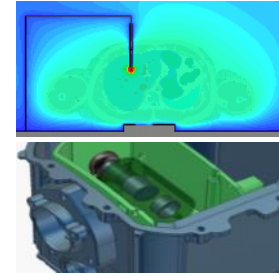
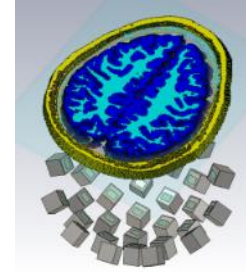
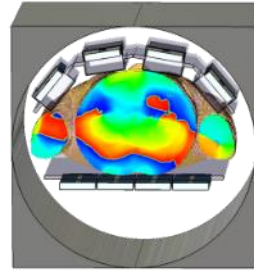
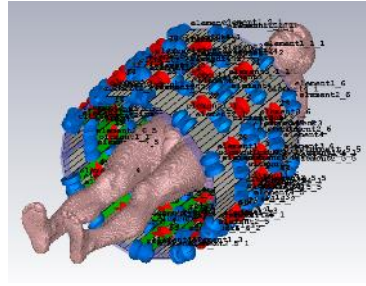
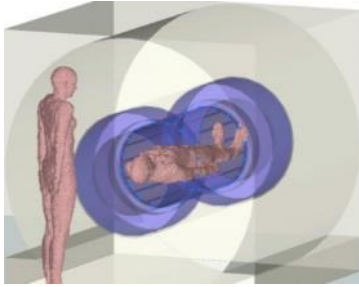


Integrated Antenna Engineering (e.g. WIFI, Bluetooth, GSM, etc.)



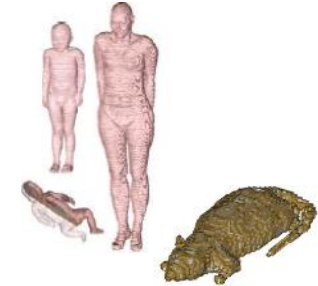
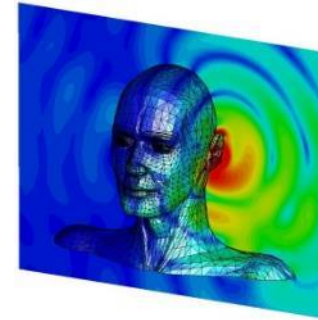
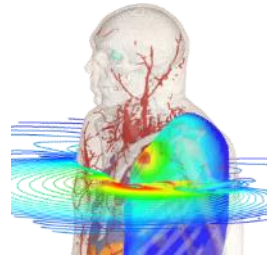
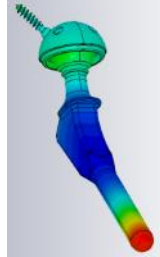
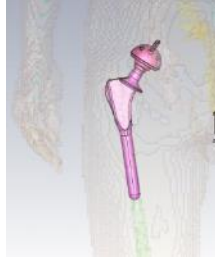
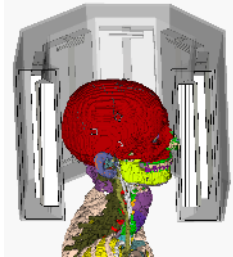
Wearable Devices and Radiation Hazard Mitigation

Life Sciences



MRI and other Imaging Applications

Screening and X-Ray



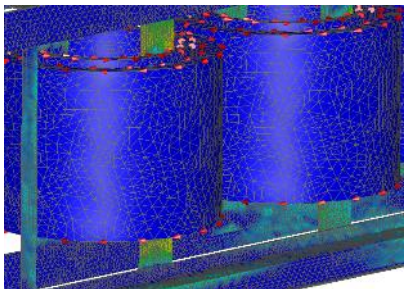
Implant Safety

Pacemaker

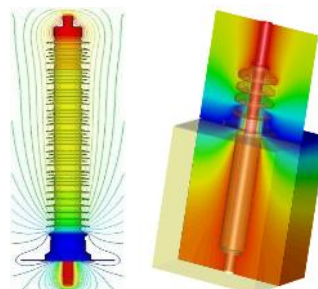
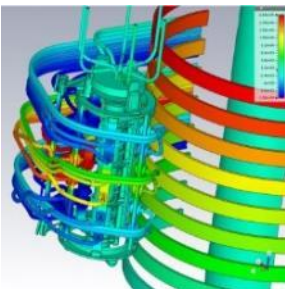
Hearing Aids

Bio Models

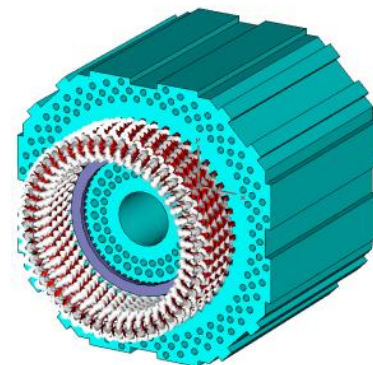
Energy, Process & Utilities



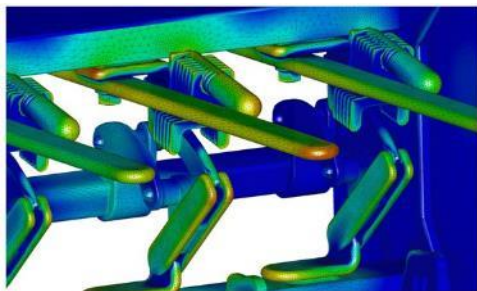
Transformers and High Power Systems



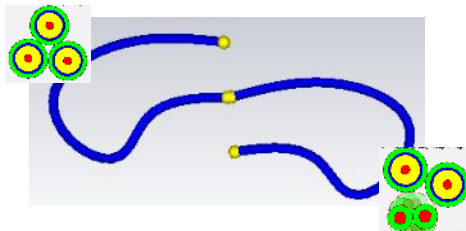
Insulators



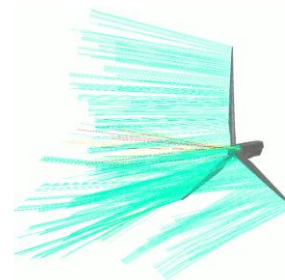
Generators



High Voltage Components



Cables and other Power Transmission Systems



Reflections Wind Turbines

Proposal software packages and main functions:

CST Studio Suite Package - S2K

All included in the
CST Studio Suite Package!



CST MICROWAVE STUDIO

Our Flagship Product for 3D EM Simulations for high frequencies



CST EM STUDIO

3D EM Simulation for statics and low frequencies



CST PARTICLE STUDIO

Interaction of EM Fields with Free Moving Charges



CST MPHYSICS STUDIO

Thermal and Mechanical Effects of EM Fields



CST CABLE STUDIO

For signal integrity and EMC/EMI analysis of cable harnesses



CST PCB STUDIO

For signal and power integrity and EMC/EMI analysis of PCBs



CST BOARDCHECK

For signal integrity and rule-checking of PCB layouts



CST DESIGN STUDIO

Circuit Simulator, Coupling of 3D Models, System Assembly Modeling

Proposal software packages and main functions: CST Add-on Modules



Antenna Magus

An expert system for antenna design

5CP-S2G - CST Studio Suite Antenna Magus



FEST 3D

Design and analysis of filters and other waveguide components

5CP-S2H - CST Studio Suite FEST3D



SPARK 3D

Multipactor and gas discharge breakdown analysis

5CP-S2Q - CST Studio Suite SPARK3D



System Simulator

Design of electromechanical components

5CT-S2Y - CST Studio Suite System Simulator



Filter Designer 3D

Simulation of passive microwave components

5CT-S23 - CST Studio Suite Filter Designer 3D

Hardware Recommendation:

- ▶ The following Examples are just a Reference. You may also use Hardware with similar Specifications

Simulation Server	Details	Quantity	Comment
Server		1	There are many different servers that are supported, please refer to: https://www.nvidia.com/en-us/data-center/tesla/tesla-qualified-servers-catalog/
GPU	NVIDIA Tesla V100 32Gb	2	Great performance and speedup for both small and large models. Suitable for small as well as large simulation projects.
User 1 and 2			
Workstation	Intel i7, Quad Core at around 2.9 GHz. 32 GB RAM, 500 GB HDD	2	Laptop suitable to run medium intensity simulation jobs, in case server is busy and more simulations are due. Also great for modeling tasks.



<http://aesvietnam.com/>